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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/480,588	01/10/2000	ROBERT LEONARD FULKS	9D-HR-19163-	4504
7590	06/24/2005		EXAMINER	
John S. Beulick Armstrong Teasdale LLP One Metropolitan Square, Suite 2600 St. Louis, MO 63102			JEFFERY, JOHN A	
			ART UNIT	PAPER NUMBER
			3742	
			DATE MAILED: 06/24/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/480,588 Examiner John A. Jeffery	FULKS, ROBERT LEONARD Art Unit 3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 05 April 2005.
- 2a) This action is **FINAL**.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-3,5-12 and 14-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-3,5-12 and 14-17 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 02 December 2002 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### ***Claim Rejections - 35 U.S.C. § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 8-10, 15, and 17 are rejected under 35 USC 102(b) as being anticipated by Ammerman (US 3,152,241). Ammerman (US 3,152,241) discloses a reflective bracket comprising a parabolic "channel" 29 formed from a reflective material that reflects heat emitted by heating element 23. See Figs. 3 and 5 and col. 2, lines 12-60. Channel 29 comprises longitudinal ventilation openings 51. See col. 3, lines 44-48. Because the openings are completely devoid of reflective material, they inherently would contribute to "prevent[ing] a reflection of heat from the bottom of the channel." Shield 10 covers the heating element.

Regarding claims 8, 9, 15, and 17, note integral "holding bracket" 31 in Fig. 5.

Regarding claim 10, because one set of longitudinal openings 51 is radially disposed (i.e., at an angle) from the other set of openings 51, they are inherently oblique to one another.<sup>1</sup>

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<sup>1</sup> As noted in the previous office action, according to Merriam-Webster's online dictionary, the term "oblique" is defined as "neither perpendicular nor parallel: inclined." *Merriam-Webster Online Dictionary*, at <http://www.m-w.com/cgi-bin/dictionary?book=Dictionary&va=oblique> (last visited Aug. 26, 2004). Therefore, the lines of ventilation openings along the parabolic channel of Ammerman (US 3,152,241) fully meet this interpretation.

***Claim Rejections - 35 U.S.C. § 103(a)***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made:

Subject matter developed by another person, which qualifies as prior art only under subsection (f) and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 5, 14, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ammerman (US 3,152,241). The claims differ from the previously cited prior art in calling for the shield to be integral with the channel. However, it is well settled that the recitation that a structure is integral, as contrasted to constituent parts which are rigidly secured together, is merely a matter of obvious engineering design choice. See *In re Fridolph*, 50 CCPA 745, 89 F.2d 509, 135 USPQ 319. See also *In re Lockhart*, 90 USPQ 214 (CCPA 1951), *In re Larson*, 144 USPQ 347, and *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893). Thus, although the shield and channel of Ammerman (US 3,152,241) are separate parts rigidly secured together, integrally forming the structure would have been obvious design choice.

Moreover, by forming such brackets integrally, the structure can be fabricated from a single sheet of metal thus reducing apparatus parts and precluding the need for fasteners. In view of this well-known advantage, it would have been obvious to one of ordinary skill in the art to form the shield integrally so that the structure can be

fabricated from a single sheet of metal thus reducing apparatus parts and precluding the need for fasteners.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ammerman (US 3,152,241) in view of Knoll et al (US 3,051,816). The claim differs from Ammerman (US 3,152,241) in calling for the holding bracket to comprise a plurality of fingers. Providing finger-like extensions on holding brackets, however, is well known in the art. Knoll et al (US 3,051,816), for example, provides an upwardly-extending lip (i.e., a "finger") 51 on the end of holding bracket 50. See Fig. 4. Such a structure increases the contact surface area of the holding bracket to the adjacent structure and improves resiliency. In view of Knoll et al (US 3,051,816), it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a plurality of fingers on the holding bracket of Ammerman (US 3,152,241) (i.e., one finger on each end of bracket 17) to increase the contact surface area of the holding bracket to the adjacent structure and improve resiliency.

Claims 6, 7, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ammerman (US 3,152,241) in view of Marr (US 2,433,137). The claims differ from Ammerman (US 3,152,241) in calling for at least one ventilation opening to extend laterally along the channel sides. Although the ventilation openings 51 of Ammerman (US 3,152,241) extend longitudinally, providing laterally extending openings on reflectors in electric heaters to promote ventilation through the reflector is

well known in the art. Marr (US 2,433,137), for example, discloses providing a plurality of lateral openings 11 in a reflector to promote a uniform flow of air along the width of the reflector. In view of Marr (US 2,433,137), it would have been obvious to one of ordinary skill in the art at the time of the invention to provide lateral openings in the reflector of Ammerman (US 3,152,241) to promote a more uniform flow of air along the width of the reflector.

Regarding claim 7, the flap-like structure of holding bracket 31 of Ammerman fully reads on the claimed "flap" structure.

Regarding claims 11 and 12, because ventilation openings 11 contain both longitudinal and lateral components, Marr (US 2,433,137) fully meets the lateral and longitudinal extension limitations claimed.

#### ***Other Pertinent Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant should (1) separately consider the art, and (2) consider the art together with the previously cited prior art for potential applicability under 35 U.S.C. §§ 102 or 103 when responding to this action. US 786 discloses an apertured reflector relevant to the instant invention.

#### ***Response to Arguments***

Applicant's arguments have been considered but are deemed to be moot in view of the new grounds of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. Jeffery whose telephone number is (571) 272-4781. The examiner can normally be reached on Monday - Thursday from 7:00 AM to 4:30 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans, can be reached on (571) 272-4777. All faxes should be sent to the centralized fax number at (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JOHN A. JEFFERY  
PRIMARY EXAMINER

6/23/05